

What is claimed is:

1. A method of forming a patterned thin film containing stacked sublayers whose number is M where M is an integer that is two or greater, the method comprising the steps of forming the respective sublayers by frame plating from a first sublayer to an Mth sublayer one by one, each of the steps including:

the step of forming a coating film by applying a liquid resist to a layer below;

the heat processing step of forming a resist layer by performing heat processing on the coating film;

the step of forming a frame having a groove by patterning the resist layer; and

the plating step of forming each of the sublayers by plating through the use of the frame, wherein,

in the plating step of the step of forming an Nth sublayer where N is an integer that is one or greater, and is (M-1) or smaller, the sublayer is formed to include: a first portion having a sidewall and encased in the groove; and a second portion extending out of the groove and coupled to the first portion, the second portion having overhang portions that overhang and extend more outward than the sidewall of the first portion.

2. The method according to claim 1, wherein the sublayer is formed such that adjacent ones of the overhang portions are kept from being in contact with each other in the plating step of the step of forming the Nth sublayer.

3. The method according to claim 1, wherein:

the sublayer is formed such that adjacent ones of the overhang portions are in contact with each other in the plating step of the step of forming the N^{th} sublayer; and

- the step of forming the N^{th} sublayer further includes the step of
- 5 removing at least part of the overhang portions by etching so that adjacent ones of the overhang portions are separated from each other after the plating step.

4. A patterned thin film comprising sublayers whose number is M where
- 10 M is an integer that is two or greater, the sublayers being stacked one by one from a first sublayer to an M^{th} sublayer, wherein:

an N^{th} sublayer, where N is an integer that is one or greater, and is $(M-1)$ or smaller, includes:

- a first portion having a sidewall; and
- 15 a second portion coupled to an end of the first portion near an $(N + 1)^{\text{th}}$ sublayer; and

the second portion includes overhang portions that overhang and extend more outward than the sidewall of the first portion.